

# Hanford Advisory Board – Vapors Management Update

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Chemical Protection Program Manager

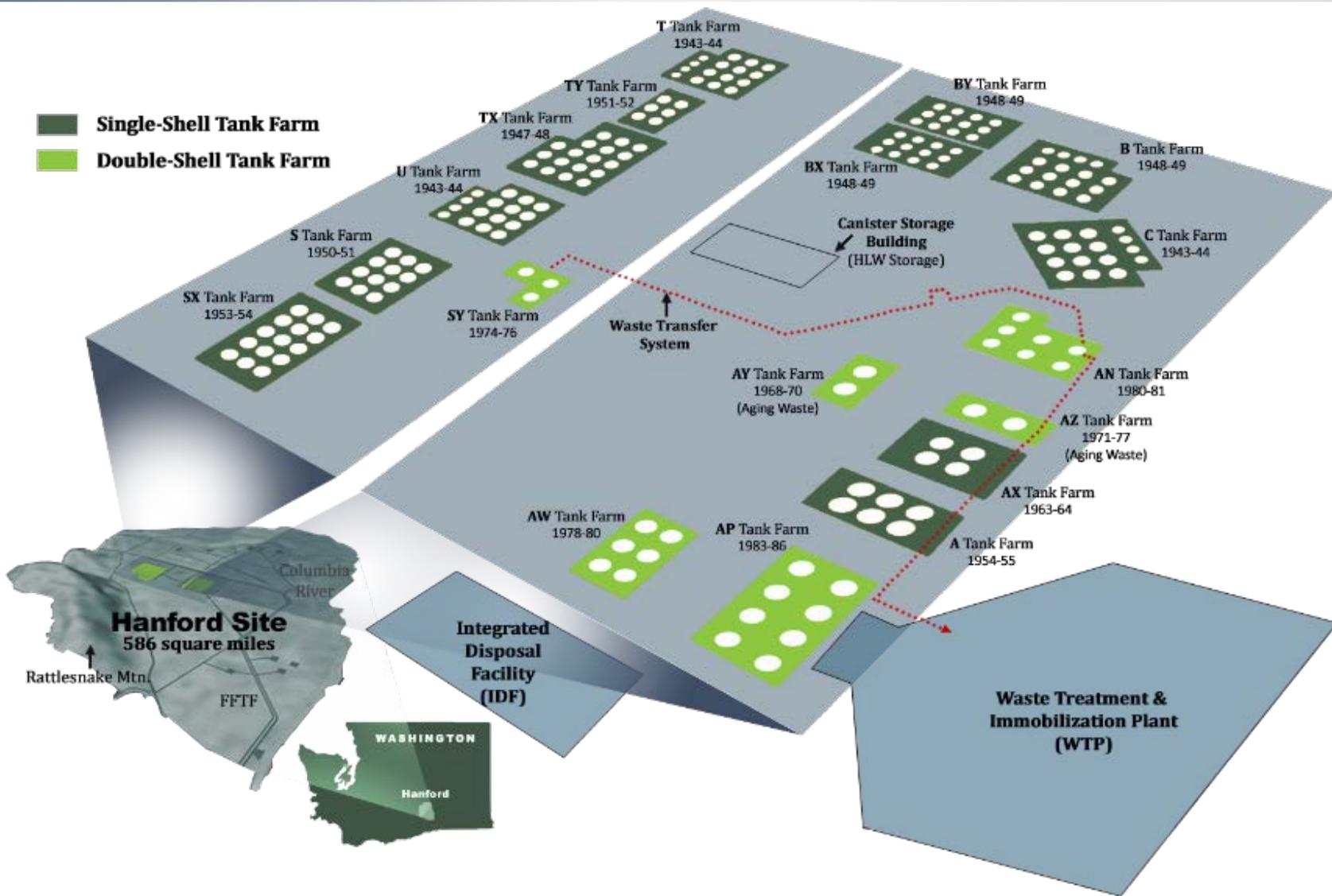
March 2017





# Hanford Tank Farms

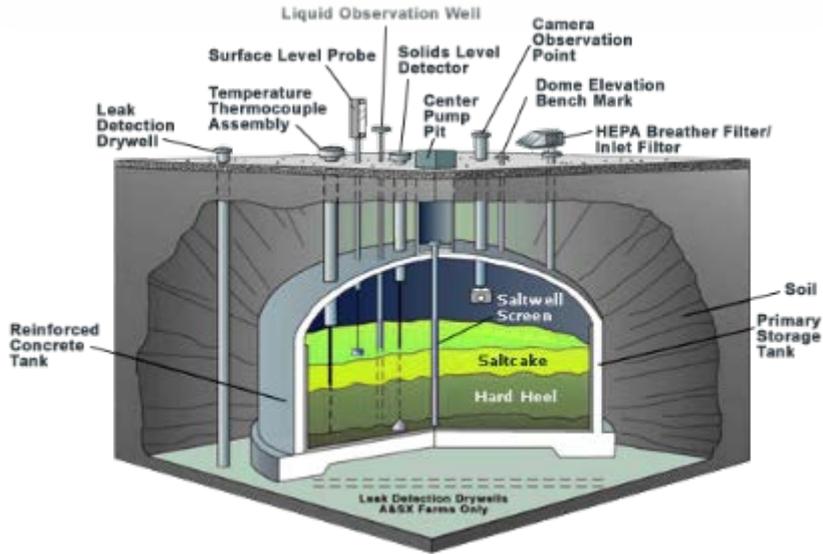
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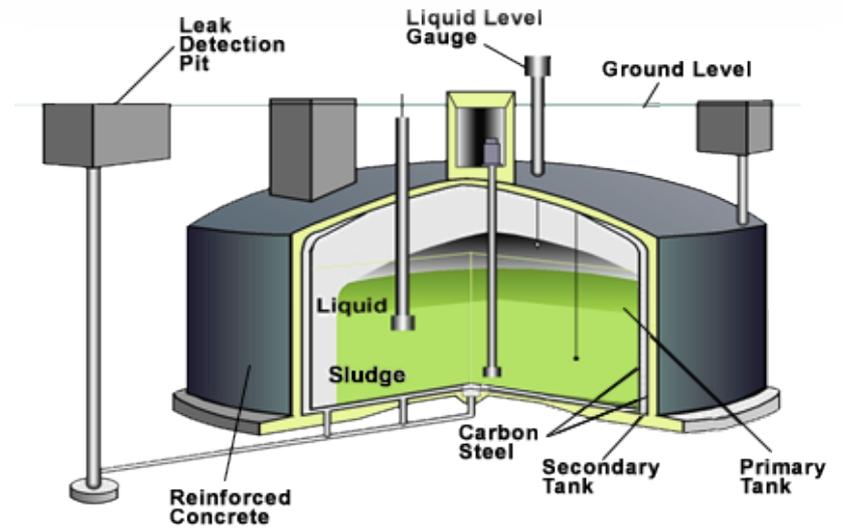


# Hanford Tanks and Waste

## 149 Single-Shell Tanks (SSTs)



## 28 Double-Shell Tanks (SSTs)





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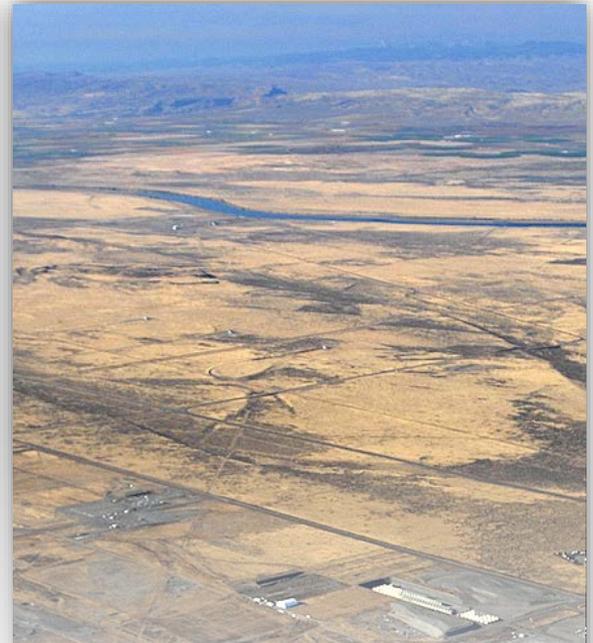
# River Protection Project Mission



Protect the public and the environment from the risk posed by 56 million gallons of radioactive and chemical waste stored in 177 underground tanks



Safely manage and retrieve waste from tanks and prepare the delivery system for the Waste Treatment Plant



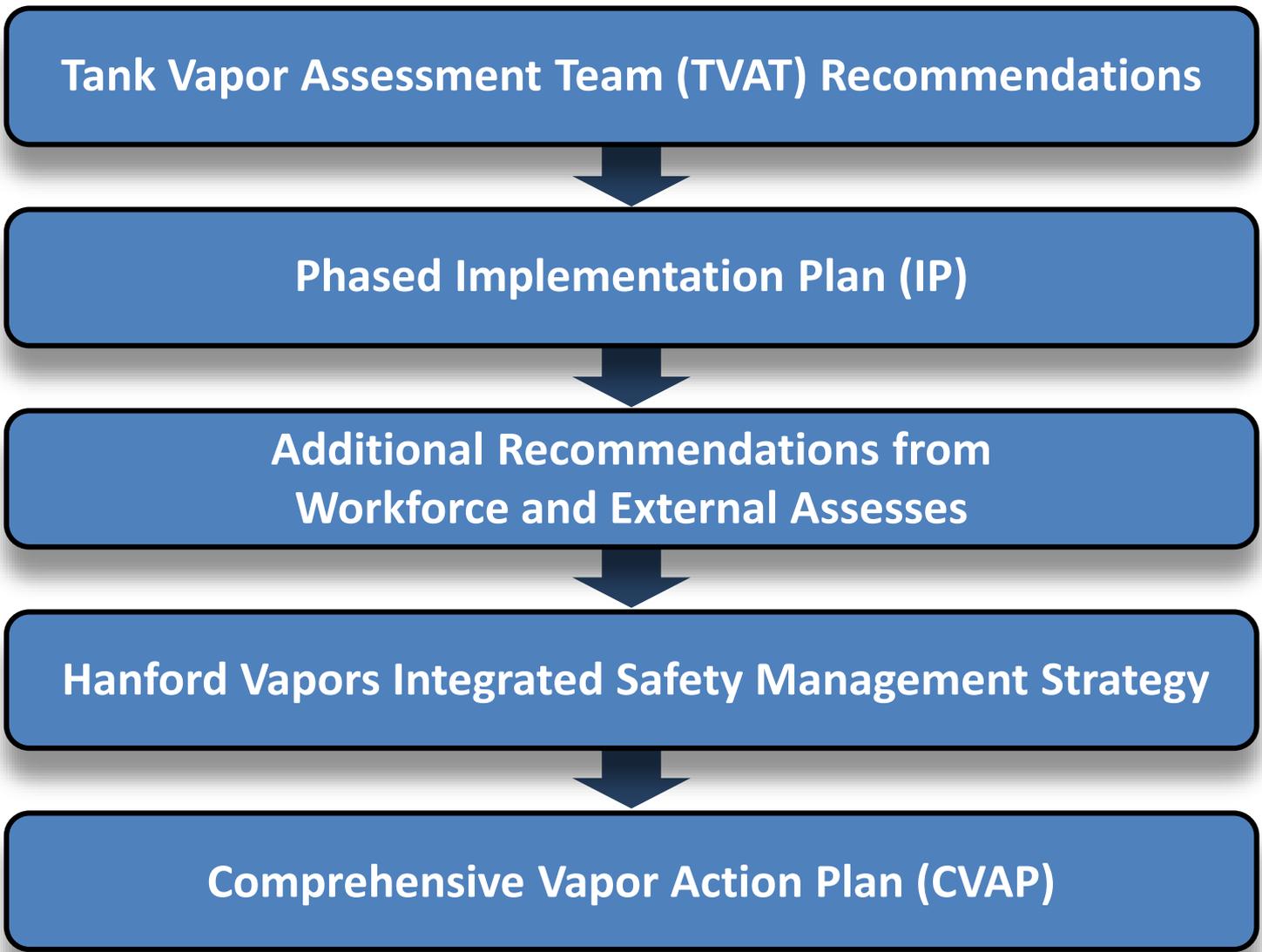
Immobilize the waste at the Waste Treatment Plant

# Vision for Hanford Central Plateau Vapors Management

To create a comprehensive vapors management strategy that protects and is actively embraced by workers in the Hanford Tank Farms so that workers *are safe and feel safe*



# Hanford Vapors Integrated Safety Management Strategy (Phase II)



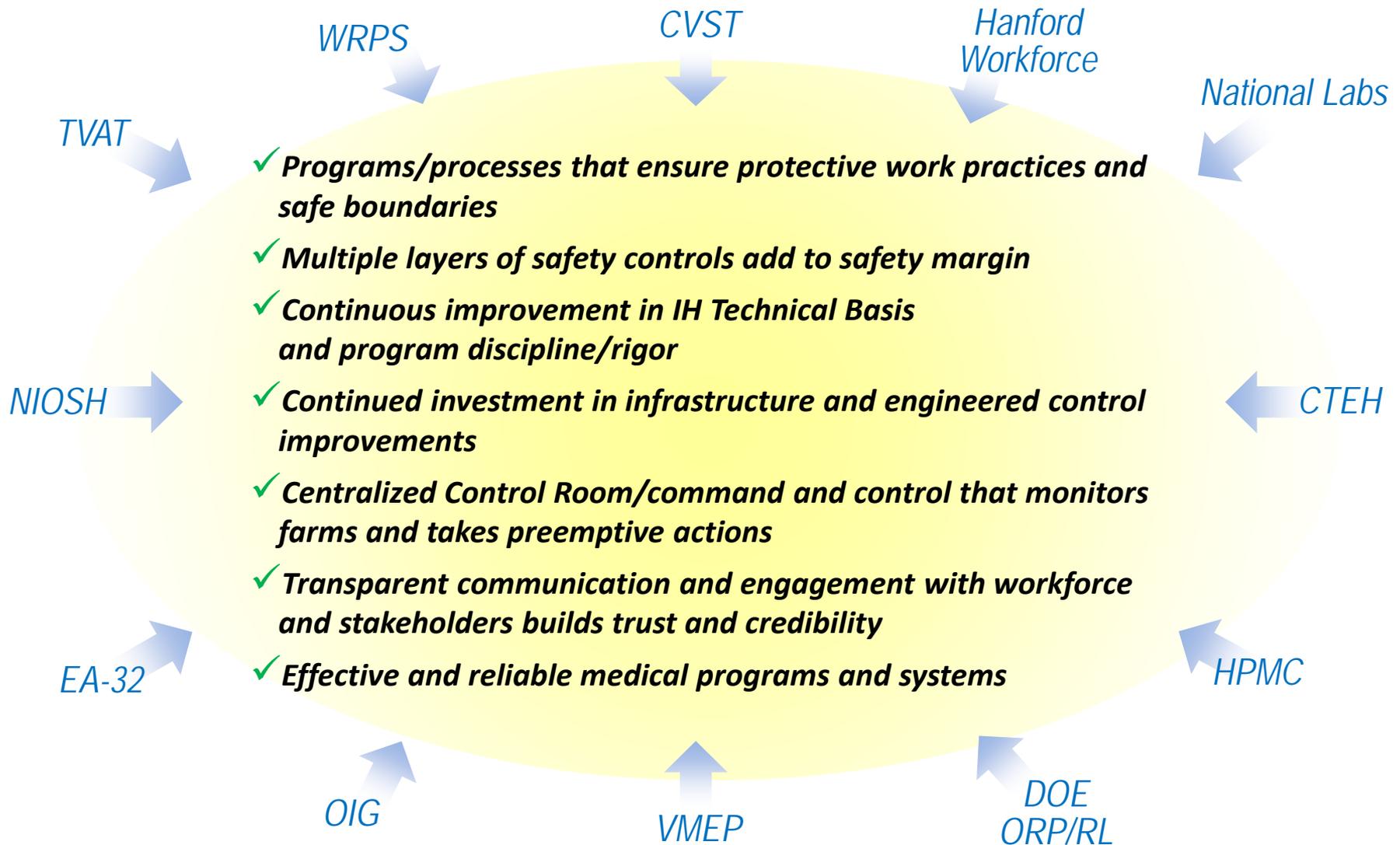


# Chemical Vapors Strategic Plan

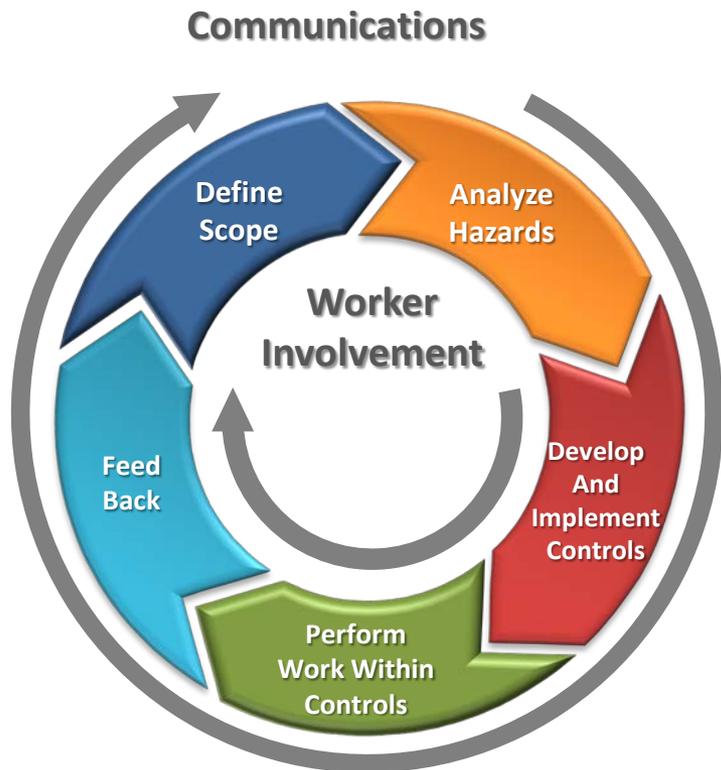
- Create an institutionalized program that transitions from reactive to predictive
- Improve stakeholder/worker confidence (work safe/be safe/feel safe)
  - Worker engagement
  - Defense-in-depth controls that increase the margin of safety
  - Transparent, effective communications
  - Continued collaboration with union leadership
- Realization of vision/strategy and tactical objectives



# Hanford Vapors Strategic Objectives



# Implementation of Hanford Vapors Strategy



1. **Centralized Command and Control** monitors farms and takes preemptive actions
2. **Fence lines are safe**
3. Protective work practices with **defense-in-depth safety controls**
4. Infrastructure improvements: **engineered controls and abatement technologies**
5. Continuous improvement in **IH Technical Basis qualifications/program rigor**
6. **Worker involvement**
7. **Transparent workforce and stakeholders communications** build trust/credibility
8. **Reliable medical programs and systems with medical results documented**

## Completed 33 head-space samples

Multiple depths (to determine stratification concern)  
using both sample media and summa canisters

- 14,229 data results with 843 chemical constituents analyzed
- No new COPCs identified
- Data consistent with historical characterization

## Respirator filter cartridge testing

- Successful completion of eight locations
- Lab analysis is complete for first four locations and delivered to PNNL
- PNNL completed AP Farm report (September 2016)
- Issuance of final reports will include:
  - Recommendation on the length of time selected cartridges will be used
  - Conditions in which cartridges will be used and their locations
- Transition from SCBA to respirator filter cartridge in AP Farm

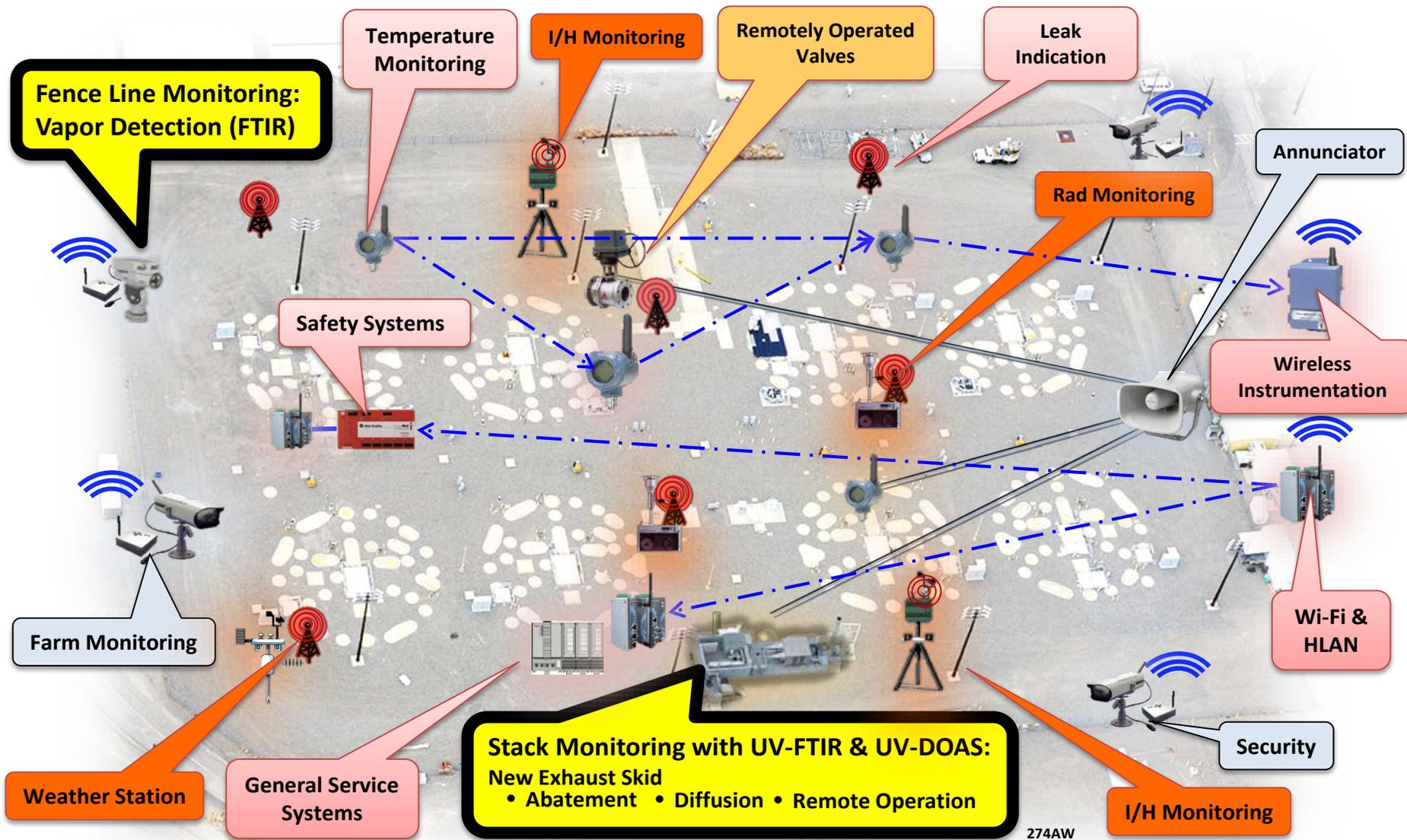




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# Next Generation Tank Farm - Overview

Utilize existing and new automation capabilities to monitor and control farms remotely



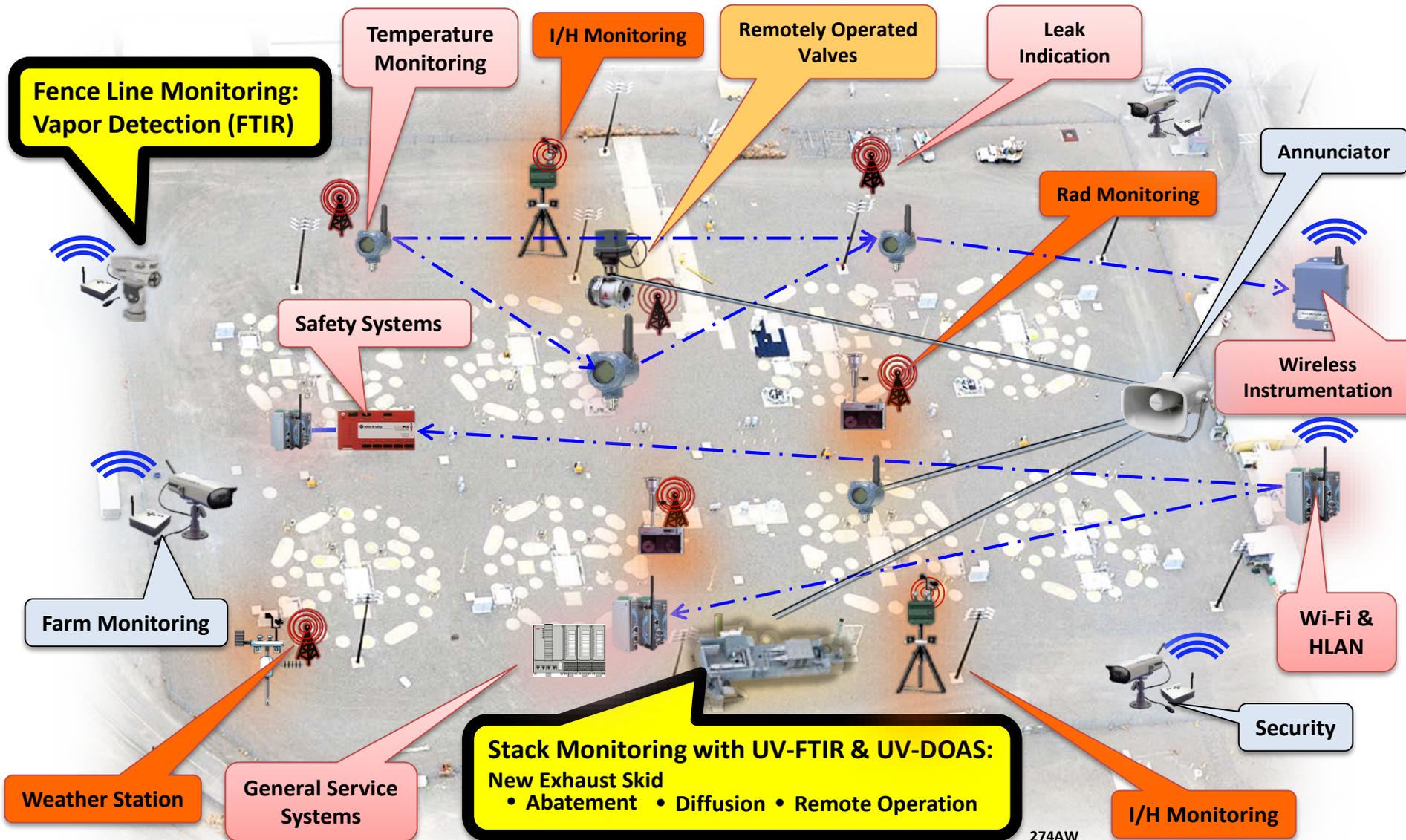
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# Questions?

